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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,148	04/15/2004	Charles Jay Alpert	AUS920040082US1	7858
7590	10/18/2005		EXAMINER WHITMORE, STACY	
Jack V. Musgrove 2911 Briona Wood Lane Cedar Park, TX 78613			ART UNIT	PAPER NUMBER
			2825	
DATE MAILED: 10/18/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/825,148

Applicant(s)

ALPERT ET AL.

Examiner

Stacy A. Whitmore

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6,9,12,14,15,17,20,22,23 and 25 is/are rejected.
- 7) ☒ Claim(s) 2,5,7,8,10,11,13,16,18,19,21,24,26 and 27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### Claim Objections

1. Claims 23-24 are objected to because of the following informalities:
  - I. Claims 23-24 are objected to because claims 23-24 are dependent upon claim 23. Examiner reads the claim dependency to be a typographical error, and reads the claims to be dependent upon claim 22.

Appropriate correction is required.

### Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3-4, 6, 9, 12, 14-15, 17, 20, 22-23, and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Teig (US Patent Application Publication (2002/0157075)).
3. As for claims 1, 3-4, 6, 9, 12, 14-15, 17, 20, 22-23, and 25, Teig discloses the invention as claimed, including a method (computer system having means for and computer program product comprising instructions for) quantifying the stability of a placement tool based in mapping the physical layout of logic cells for an IC, comprising the steps of:  
Designing a first layout of logic cells using the placement tool based on a first set of input parameters [paragraphs 0011-0015];

Designing a second layout of the logic cells using the placement tool based on a second set of input parameters which is different from the first set of input parameters [paragraphs 0011-0015]; and calculating a stability value based on the movement of respective cell locations from the first layout to the second layout [paragraphs 0011-0015]. (Note: Teig discloses an iterative placement improvement technique where the locations of cells are move based on objectives or parameters and a quantification of the quality of placement is computed. Applicant's claim limitation concerning the calculating step does not require that the stability value be limited to the placement tool itself).

Said calculating step measures absolute movement of individual logic cells [paragraph 0015 – simulated annealing uses absolute movement];

Said calculating step measures relative movement of logic cells with respect to the one or more nets of the layouts [paragraph 0015, the movement of related or swapping of modules measures relative movement];

The placement tool uses an annealing algorithm, and the first and second sets of input parameters have different annealing schedules [paragraph 0015 – simulated annealing];

4. Claims 2, 5, 7-8, 10-11, 13, 16, 18-19, 21, 24, and 26-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to disclose the invention as claimed, either singularly or in combination including at least [claims 2, 5, 7-8, 10-11, 13, 16, 18-19, 21, 24, and 26-27], the steps of normalizing the stability value based on respective cell locations in a third layout which is random a placement of the logic cells; wherein absolute/relative cell movement is squared in calculating the stability value; wherein shifting of logic cells and symmetric reversal of logic cells about a net center does not contribute to the

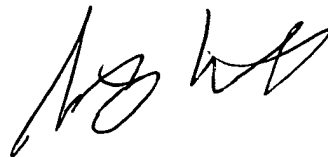
relative movement, but spreading of logic cells and rotation of the logic cells with respect to the net center does contribute to the relative movement; the placement tool uses a multi-level algorithm, and the first and second sets of input parameters have different random seeds for clustering; a quadratic algorithm, and the first and second sets of input parameters have different stopping criteria.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stacy A. Whitmore whose telephone number is (571) 272-1685. The examiner can normally be reached on Monday-Thursday, alternate Friday 6:30am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith can be reached on (571) 272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stacy A Whitmore  
Primary Examiner  
Art Unit 2825



SAW

October 17, 2005